



Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
Approved by Government of Tamil Nadu and Accredited by NAAC with 'A++' Grade (3rd Cycle-3.64 CGPA)
Dr. N.G.P. – Kalapatti Road, Coimbatore-641048, Tamil Nadu, India
Web: www.drngpasc.ac.in | Email: info@drngpasc.ac.in | Phone: +91-422-2369100

REGULATIONS 2026-27 for Under Graduate Programme

(Outcome Based Education model with Choice Based Credit System)

Bachelor of Commerce Business Analytics Degree

(For the students admitted during the academic year 2026-27)

Programme: B. Com. (Business Analytics)

Eligibility

A candidate who has passed in Higher Secondary Examination with any Academic Stream or Vocational Stream as one of the subjects under Higher Secondary Board of Examination and as per the norms set by the Government of Tamil Nadu or an Examination accepted as equivalent thereto by the Academic Council, subject to such conditions as may be prescribed thereto are permitted to appear and qualify for the Bachelor of Commerce Business Analytics Degree Examination of this College after a Programme of study of three academic years.

Programme Educational Objectives

On successful completion of the Programme, the following are the expected Programme Educational Outcomes

- To acquire a particular skill-set to succeed in a business analytics career. Inquisitiveness, interpretation skills, thorough understanding of tools and methods, ability to do in-depth research and quantitative skills.
- Having a basic understanding in analytics, statistics, economics, accounting concepts.
- To develop students and help them to learn and apply modern decision technology and statistical methods to decision-making.
- To develop professional skills, ethical values, personal values among the students.
- To get hold of destined critical and analytical positions out of progressive and comprehensive knowledge in analytics field.

PROGRAMME OUTCOMES

On the successful completion of the program, the following are the expected outcomes.

PO Number	PO Statement
PO1	To assimilate and to shine as Business analyst and finance experts
PO2	To get along with erudition in accounting concepts, policies and operations
PO3	To gain a full-scale knowledge in data analytics and lead to data scientist in IT sector
PO4	To procure wisdom in communication and information technology to serve as analytics professionals
PO5	To accumulate practical Knowledge in various statistical software packages

Credit distribution summary

For students admitted in AY 26-27 and onwards.

Part	Subjects	No. of Papers	Credit	Semester No.
I (12 Credits)	Tamil / Hindi / French/Malayalam	4	4 x 3 = 12	I to IV
II (12 Credits)	English	4	4 x 3 = 12	I to IV
III (108 Credits)	Core (Credits 4,3)	15 x 4 2 x 3	66	I to VI
	Core Practical (Credits 2)	2	2x2=4	I, II
	Inter Departmental Course (IDC))	4	4 x 4 =16	I to IV
	Discipline Specific Elective (DSE)	3	3x 4=12	V & VI
	Skill Enhancement Course (SEC)	4	4 x 2= 8	III to VI
	Industrial Training	1	1 x 2 = 2	V
IV (8 Credits)	Environmental Studies(AECC)	1	2	I
	Basic Tamil/ Advance Tamil/Human Rights, & Women's Rights (AECC)	1	2	II
	Generic Elective (GE)	1	2	V
	Innovation & IPR/ Innovation, IPR & Entrepreneurship (AECC)	1	2	VI
V (2 Credits)	NSS/NCC/YRC/RRC/Yoga/Sp orts/Clubs/ Health and Wellness	-	2	I - II
TOTAL CREDITS			142	

B.COM. (BUSINESS ANALYTICS)

CURRICULUM- 2026-27

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
First Semester												
Part- I												
26TLU1TA	Language - I	Tamil-I	4	1	-	5	60	3	25	75	100	3
26TLU1HA		Hindi-I										
26TLU1MA		Malayalam-I										
26TLU1FA		French - I										
Part- II												
25ELU1EA	Language-II	English - I	4	-	1	5	60	3	25	75	100	3
Part- III												
26COU1CA	Core - I	Financial Accounting	5	1	-	6	72	3	25	75	100	4
26BAU1CA	Core - II	Fundamentals of Business Analytics	4	-	-	4	48	3	25	75	100	4
26BAU1CP	Core Practical- I	Spreadsheet Modelling and Accounting Package	-	-	4	4	48	3	40	60	100	2
26MTU1IA	IDC - I	Business Mathematics	4	-	-	4	48	3	25	75	100	4
Part-IV												
26CEU1AA	AECC-I	Environmental Studies	2	-	-	2	25	2	50	-	50	2
Part - V												
26BAU1XA	Extension Activity	NSS/NCC/ YRC/RRC/ Yoga/Sports Clubs/ Health and Wellness	-	-	-	-	-	-	50	-	50	1
Total			23	2	5	30	360	-	-	-	700	23

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
Second Semester												
Part-I												
26TLU2TA	Language - I	Tamil-II	4	1	-	5	60	3	25	75	100	3
26TLU2HA		Hindi-II										
26TLU2MA		Malayalam-II										
26TLU2FA		French - II										
Part- II												
26ELU2EA	Language-II	English -II	4	-	1	5	60	3	25	75	100	3
Part- III												
26BPU2CA	Core - III	Advanced Financial Accounting	5	1	-	6	72	3	25	75	100	4
26BAU2CA	Core -IV	Modern Databases	4	-	-	4	48	3	25	75	100	4
26BAU2CP	Core Practical-II	Modern Databases SQL, NoSQL,	-	-	4	4	48	3	40	60	100	2
26MTU2IA	IDC - II	Business Statistics	4	-	-	4	48	3	25	75	100	4
Part-IV												
26TLU2AA	AECC-II	Basic Tamil	2	-	-	2	24	2	50	-	50	2
26TLU2AB		Advanced Tamil										
26CMU2AA		Human Rights and Women's Rights										
Part-V												
26BAU2XA	Extension Activity	NSS/NCC/ YRC/RRC/ Yoga/Sports Clubs/ Health and Wellness	-	-	-	-	-	-	50	-	50	1
Total			23	2	5	30	360				700	23

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
Third Semester												
PART- I												
26TLU3TA	Language-I	Tamil-III	3	1	-	4	48	3	25	75	100	3
26TLU3HA		Hindi-III										
26TLU3MA		Malayalam-III										
26TLU3FA		French -III										
PART- II												
26ELU3EA	Language-II	English - III	3	1	-	4	48	3	25	75	100	3
PART- III												
26CMU3CA	Core - V	Cost Accounting	5	-	-	5	60	3	25	75	100	4
26BI3UCB	Core - VI	Company Law	4	-	-	4	48	3	25	75	100	4
26BAU3CA	Core - VII	Python for Data Analytics	5	-	-	5	60	3	25	75	100	4
26COU3IA	IDC - III	Business Economics	4	-	-	4	48	3	25	75	100	4
26BAU3SP	SEC Practical-I	Python for Data Analytics	-	-	4	4	48	3	40	60	100	2
Total			24	2	4	30	360	-	-	-	700	25

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
Fourth Semester												
PART- I												
26TLU4TA	Language - I	Tamil-IV	3	1	-	4	48	3	25	75	100	3
26TLU4HA		Hindi-IV										
26TLU4MA		Malayalam-IV										
26TLU4FA		French -IV										
PART - II												
26ELU4EA	Language-II	English -IV	3	1	-	4	48	3	25	75	100	3
PART - III												
26CRU4CA	Core - VIII	Corporate Accounting	5	1	-	6	72	3	25	75	100	4
26BAU4CA	Core - IX	Data Mining and Business Intelligence	4	-	-	4	48	3	25	75	100	4
26BAU4CB	Core -X	Principles of Management	4	-	-	4	48	3	25	75	100	4
26MTU4IB	IDC - IV	Optimization Techniques	4	-	-	4	48	3	25	75	100	4
26BAU4SP	SEC Practical- II	Data Visualization for Business Intelligence	-	-	4	4	48	3	40	60	100	2
Total			23	3	4	30	360	-	-	-	700	24

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
Fifth Semester												
Part-III												
26BAU5CA	Core - XI	R Programming	5	1	-	6	72	3	25	75	100	4
26ATU5CC	Core - XII	Income Tax Law and Practice	5	1	-	6	72	3	25	75	100	4
26COU5CB	Core - XIII	Research Methodology	4	-	-	4	48	3	25	75	100	4
26BAU5CB	Core - XIV	Financial Management	4	-	-	4	48	3	25	75	100	3
26BAU5SP	SEC Practical - III	R Programming for Data Analytics	-	-	4	4	48	3	40	60	100	2
26CMU5DA	DSE -I	Financial Markets and Services	4	-	-	4	48	3	25	75	100	4
26CIU5DA		E-Business Technology										
26CRU5DA		Human Resource Management										
26BAU5DA		Service Marketing										
26BAU5TA	IT	Industrial Training	-	-	-	-	-	3	40	60	100	2
Part- IV												
	GE		-	-	2	2	24	3	50	-	50	2
Total			22	2	6	30	360				750	25

Course Code	Course Category	Course Name	L	T	P	Instruction Hours		Exam (h)	Max Marks			Credits
						Week	Total		CIA	ESE	Total	
Sixth Semester												
Part-III												
26BAU6CA	Core -XV	Management Accounting	5	-	-	5	60	3	25	75	100	4
26BAU6CV	Core - XVI Project	Project and Viva- Voce	-	-	8	8	96	3	40	60	100	4
26BAU6CB	Core -XVII	Big Data Analytics	3	-	-	3	36	3	25	75	100	3
26BAU6SP	SEC Practical -IV	Statistical Data Analysis	-	-	4	4	48	3	40	60	100	2
26CMU6DA	DSE-- II	Security Analysis and Portfolio Management	4	-	-	4	48	3	25	75	100	4
26CIU6DA		Enterprise Resource Planning										
26CRU6DA		Organizational Behavior										
26BAU6DA		Retail Marketing										
26CMU6DB	DSE - III	Digital Trading	4	-	-	4	48	3	25	75	100	4
26CIU6DB		Information Security										
26CRU6DB		Labour Laws and Practice										
26BAU6DB		Social Media Marketing										
Part- IV												
26CIU6AA	AECC-III	Innovation and IPR	2	-	-	2	24	-	50	-	50	2
Total			18	-	12	30	360				650	23
*Grand total											4200	142

DISCIPLINE SPECIFIC ELECTIVE

Students shall select the desired course of their choice in the listed elective courses during Semesters V & VI

Semester V (Elective I) List of Elective Courses

S. No.	Course Code	Name of the Course
1.	26CMU5DA	Financial Markets and Services
2.	26CIU5DA	E-Business Technology
3.	26CRU5DA	Human Resource Management
4.	26BAU5DA	Service Marketing

Semester VI (Elective II) List of Elective Courses

S. No.	Course Code	Name of the Course
1.	26CMU6DA	Security Analysis and Portfolio Management
2.	26CIU6DA	Enterprise Resource Planning
3.	26CRU6DA	Organizational Behavior
4.	26BIU6DA	Retail Marketing

Semester VI (Elective III) List of Elective Courses

S. No.	Course Code	Name of the Course
1.	26CMU6DB	Digital Trading
2.	26CIU6DB	Information Security
3.	26CRU6DB	Labour Laws and Practice
4.	26BAU6DB	Social Media Marketing

GENERIC ELECTIVE COURSES (GE)

The following are the courses offered under Generic Elective Course

Semester V (GE)

S. No.	Course Code	Course Name
1	26BAU5GP	Analytical thinking for Startups

EXTRA CREDIT COURSES

The following are the courses offered under self-study to earn extra credits

Semester III

S. No.	Course Code	Course Name
1	26BAUSSA	Brand Management
2	26BAUSSB	Fundamentals of Banking

MOOC (NPTEL/SWAYAM/ SPOKEN TUTORIAL)

The following are the online courses offered: Please refer the following link to select the courses

- www.swayam.org
- www.nptel.ac.in
- www.spoken-tutorial.org

M. S. D. [Signature]

BoS Chairman/HoD
Department of Commerce (BA)
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048

 Dr.N.G.P. Arts and Science College		
APPROVED		
Regs- 01/04/26.	AC -	GB -

Semester – I CORE : FINANCIAL ACCOUNTING							
Semester	Course Code	Course Name	Category	L	T	P	Credits
I	26COU1CA	FINANCIAL ACCOUNTING	CORE	60	12	-	4

Preamble	This course has been designed for students to learn and understand - the basic concepts of accounting, to prepare the final accounts and the methods of providing depreciation accounting. - the recording of transactions relating to bills of Exchange, methods of preparation of account for nonprofit organization. - the knowledge about rectification of errors and Bank reconciliation statement.
Prerequisite	Knowledge on Fundamental of Accounting.

Course Outcomes (Cos)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Understand basic accounting concepts and prepare journal, ledger, and trial balance	K2
CO2	Prepare final accounts with adjustments	K3
CO3	Prepare Bank Reconciliation Statement and rectify accounting errors.	K4
CO4	Apply methods of depreciation and amortization.	K5
CO5	Understand accounting of NPOs and bills of exchange.	K3

Mapping with Program Outcomes:					
Cos / POs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	M
CO2	S	S	M	S	S
CO3	S	M	S	M	S
CO4	S	S	S	S	M
CO5	S	S	S	S	M

26COU1CA	FINANCIAL ACCOUNTING
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Syllabus

Unit	Content	Hrs	Resources
I	Introduction to Accounting Accounting: Definition – Objectives – Functions – Advantages – Limitations – Types of Accounts – Basis of Accounting – Accounting Principles: Accounting Concepts and Conventions – Journal – Ledger – Subsidiary books – Trial balance. Case Study on Accounting Concepts.	16	Text Book
II	Final Accounts Final Accounts: Introduction – Trading Account, Profit and Loss Account, Balance sheet with adjustments.	12	Text Book
III	Bank Reconciliation Statement and Rectification of errors Bank Reconciliation Statement – Need – Causes-Preparation of Bank Reconciliation Statement. Rectification of errors – classification – Suspense Account. Case Study on Rectification of errors.	15	Text Book
IV	Depreciation and Amortization Depreciation – Characteristics – Causes – Need – Methods -- Straight Line, Written Down, Annuity, Sinking Fund, Insurance Policy and Machine Hour Rate Methods- Amortization of intangible asset.	14	Text Book
V	Non- Profit Organization and Bills of Exchange Non- Profit Organization - Receipts and payment Account- Income and Expenditure Account and balance Sheet. Bills of Exchange - Definition – Features – Advantages – Types – Promissory Notes – Definition – Features – Distinction between Bills of Exchange and Promissory Notes – Recording transactions relating to bills – Retiring of bill under rebate – Dishonour of a Bill - Renewal of bills. Case Study on Bills of Exchange	15	Text Book
Total		72	

	Note: Distribution of Marks: 80% problems and 20% theory. Case studies related to the above topics to be discussed (Examined Internal only)
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Text book		Jain, S. P., and Narang, K.L 2025, Advanced Accountancy - Principles of Accounting Including GST Volume I, Twentieth Revised Edition, Kalyani Publishers, New Delhi.
	1.	
	2.	Reddy, T. S., and Murthy, A. 2023, Financial Accounting, Second Revised Edition, Margham Publications, Chennai.

Reference Books	1.	Shukla M.C Grewal T. S Gupta S.C. 2022, Advanced Accounts Volume I , Nineteenth Edition, S. Chand & Company Pvt Ltd, New Delhi.
	2.	Hanif., and Mukherjee, 2018, Modern Accountancy, Volume I, Second Edition. Tata Mc Graw Hill Publishing Co. Ltd., Chennai.
	3.	S.N. Maheswari, Suneel K Maheswari and Sharad K Maheswari, 2022, Advanced Accountancy, Volume I, 11th Edition, S Chand & Company Limited.
	4.	Pillai. R.S.N and Bagavathi, Uma. S. 2012. Fundamentals of Advanced Accounting, Volume I, Third Revised Edition, Sultan Chand & Company Ltd, New Delhi.

Journal and Magazines	https://indianaccounting.org
E-Resources and Website	Best Financial Accounting Courses & Certificates Online [2024] Coursera , Infosys Springboard: Digital Learning and Reskilling Programs

Learning Method	Chalk and Talk/ Assignment/Seminar/ Group Discussion
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Focus of the Course	Skill Development/ Employability/ Entrepreneurial Development/ Innovations.
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Semester – I							
CORE I: FUNDAMENTALS OF BUSINESS ANALYTICS							
Semester	Course Code	Course Name	Category	L	T	P	Credits
I	26BAU1CA	FUNDAMENTALS OF BUSINESS ANALYTICS	CORE	48	-	-	4

Preamble	This course has been designed for students to learn and understand • understand the Basic Concept of business analytics • know about the Digital Data and Data Modeling • aware about the Enterprise Reporting and Applications of Analytics.
Prerequisite	Basic knowledge in fundamentals operation of business.

Course Outcomes (Cos)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Define the concepts, role of Business Analyst, rules of business and business analysis.	K1
CO2	Explain the Business Excellence Framework and the use of IT in enterprise applications.	K2
CO3	Classify the different types of digital data used in business environments.	K2
CO4	Apply data modeling techniques and various database schemas in business scenarios.	K3
CO5	Analyze enterprise reporting systems and applications of analytics for decision-making.	K4

Mapping with Program Outcomes:					
Cos/POs	PO1	PO2	PO3	PO4	PO5
CO1	M	M	S	M	S
CO2	S	M	M	S	M
CO3	M	S	M	M	M
CO4	M	M	S	S	S
CO5	S	M	M	M	M

26BAU1CA	FUNDAMENTALS OF BUSINESS ANALYTICS
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Syllabus

Unit	Content	Hrs	Resources
I	Introduction to the Business Analytics Introduction to the BA Role- Business Analysis -Business Analyst - The evolving role of the Business Analyst -The BA roadmap Different levels of business analysis- The basic rules of Business & Business Analysis - Classical Requirements and Tasks performed by Business Analysts - Kautilya's Arthashastra and Analytics	10	Text Book
II	Business Excellence Framework Business view of Information Technology Applications - Core business process - Baldrige Business Excellence framework - Key purpose of using IT in business Enterprise Applications - Information users and their Requirements - Data Analysis for Business Decision Making -	9	Reference Book
III	Types of Digital Data Data definition - Evolution - Data - Information - Knowledge Types of Data - Structured data - Meaning - Characteristics Unstructured data - Meaning - Managing and storage of unstructured data - Storage challenges - Extracting information - Semi Structured Data - Attributes and Measurement - Data Quality - Data Mart- Database - ETL - Data Integration	9	Text Book
IV	Data Modeling Basics of Data Integration - Data Quality - Why and What Data Quality? - Maintain - Key Areas of Study - Definition of Data Modeling- Data Warehouse Architecture - Basics - Types - Techniques - Multidimensional Data model - Fact Table Dimension Table - Star Schema - Snowflake Schema- Fact Constellation Schema- Dimension Modeling Lifecycle	10	Text Book
V	Enterprise Reporting and Applications of Analytics Overview of Enterprise Reporting and Applications of Analytics - Report Standardization and Presentation - Balanced Scorecards Performance Dashboards - Scorecards Vs Dashboards - Applications of Analytics -AI Technologies in Business Analytics -Healthcare - Retail- Web Analytics - Social Media Analytics -Recommendation Systems - BI Road Ahead- BI and Cloud Computing - Business Intelligence for ERP Systems.	10	Text Book
Total		48	

Note: Case studies related to the above topics to be discussed (Examined Internal only)

Text book	1.	Prasad R.N. and Seema Acharya , 2014 , "Fundamentals of Business Analytics " , Current Edition, Wiley Publisher, New Delhi.
	2.	
Reference Books	1.	Pang-Ning Tan Michael Steinbach, Vipin Kumar, 2015, "Introduction to Data Mining", 2015 Edition, Pearson Education, New Delhi.
	2.	Haydn Thomas - Demonoid, 2015, "Business Analysis Fundamentals", 2015 Edition, Pearson Education, New Delh
	3.	Gert H.N. Laursen, Jesper Thorlunnd, 2014, "Business Analytics for Managers", First Edition, Wiley Publisher, New Delhi.
	4.	John F. Tanner JR , 2014 , "Analytics and Dynamic Customer Strategy" , First Edition , Wiley Publisher , New Delhi.

Journal and Magazines	<u>Fundamentals of Business Analytics Business Analyst Journal</u>
E-Resources and Website	<u>Infosys Springboard: Business Analysis Fundamentals</u>

Learning Method	Chalk and Talk/Assignment/Seminar/ Group Discussion/Case Study
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Focus of the Course	Skill Development/ Development/ Innovations	Employability/	Entrepreneurial
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Semester – I CORE PRACTICAL -I: SPREADSHEET MODELLING AND ACCOUNTING PACKAGE							
Semester	Course Code	Course Name	Category	L	T	P	Credits
I	26BAU1CP	SPREADSHEET MODELLING AND ACCOUNTING PACKAGE	CORE		-	48	2

Preamble	This course has been designed for students to learn and understand • practical skills in spreadsheet modelling and accounting software applications. • financial data, automate calculations, and generate reports using spreadsheet functions searching and sorting techniques. • to implementation using digital tools. and accounting packages, fostering decision-making and data-driven insights in business environments.
Prerequisite	Basic computer proficiency and foundational commerce knowledge

Course Outcomes (Cos)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Analyze the structure and functionality of spreadsheet tools in financial data management.	K4
CO2	Examine the use of formulas, functions, and pivot tables to interpret financial trends.	K2
CO3	Evaluate accounting transactions and classify them using accounting software.	K3
CO4	Interpret financial statements generated through accounting packages	K4
CO5	Analyze financial statements generated through accounting software.	K5

Mapping with Program Outcomes:					
Cos / POs	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	S
CO2	S	M	S	S	M
CO3	S	S	S	M	S
CO4	S	S	S	S	S
CO5	S	M	M	S	M

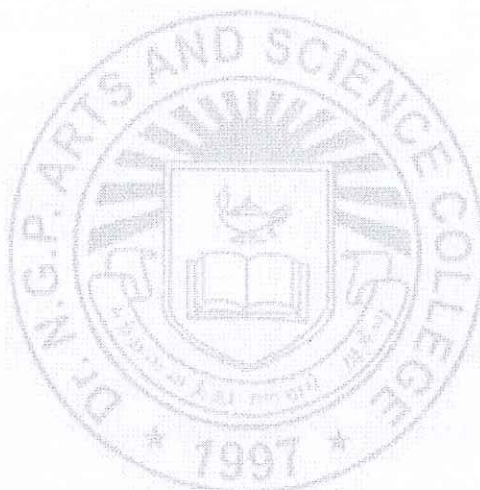
26BAU1CP	SPREADSHEET MODELLING AND ACCOUNTING PACKAGE
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S.No	List of Programs
	SPREADSHEET MODELLING
1	Collecting data using Google forms Perform Importing and Exporting Data to a Text File and Workbook Protection
2	Creation of a payroll data perform Financial Functions & Loan Calculations PMT, IPMT, FV, NPER functions Advanced Sorting, Filtering & Conditional Formatting.
3	Creation and Conversion of Pivot table & Pivot chart for Sales data
4	Performing user defined Macros: Recording, Viewing, Running Macros and VLOOKUP, HLOOKUP, Data Validation & Drop-down Lists INDEX & Text Function
5	Performing Data Analysis using the Statistical Tools: a) Descriptive Statistics b) Rank c) Weighted average d) Correlation e) Regression.
6	Dashboard Creation for Financial Summary with multiple data tables and Manage connections by using the workbook connection dialog box in spreadsheet modelling.
	ACCOUNTING PACKAGE
7	Creation of Company with enabling GST. Activation of Data Security Features. Moving to Next Financial Year – Types and Process. Creation of Accounting Masters: Groups and Ledgers.
8	Formation of Inventory Masters: Stock Item, Stock Group, Stock Categories and Units of Measures.
9	Recording and Maintenance of Vouchers with GST: Contra, Payment, Receipt, Sales, Purchase, Credit Note, Debit Note and Journal.
10	Display of Subsidiary Books- Purchase Book, Sales Book, Purchase Return Book and Sales Return Book.
11	Creation of Cost Centre and Cost Category. Generate Final Accounts Reports: Trial Balance, Profit & Loss Account and Balance Sheet.
12	Display of Cash Flow and Fund Flow Analysis Report. Present Bill wise Statement. Generate Bank Reconciliation Statement. Activation of Data Security Features.

Text Books	1.	Wayne L. Winston 2023 Microsoft Excel Data Analysis and Business Modeling- Microsoft Press.
	2.	Manish Jain,2022," Official Guide to Financial Accounting using Tally Prime", 1 st Edition, Tally Education Private Limited, BPB Publications, India

Learning Method	Demonstration/ Hands on Experiments
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Focus of the Course	Skill Development/ Employability
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Semester – I IDC: BUSINESS MATHEMATICS							
Semester	Course Code	Course Name	Category	L	T	P	Credits
I	26MTU1IA	BUSINESS MATHEMATICS	IDC	48	-	-	4

Preamble	This course has been designed for students to learn and understand - the characteristics of different types of matrices - the basic concept of sequence and series - the concept of interest and annuities
Prerequisite	Knowledge on Basic Mathematics

Course Outcomes (Cos)		
CO Number	Course Outcomes (COs) Statement	Bloom's Taxonomy Knowledge Level
CO1	Identify and define the types and uses of sets	K1
CO2	Explain matrix operations, properties and determinants	K2
CO3	Apply formulas of AP and GP to solve problems involving sums and means	K3
CO4	Evaluate investment and financial decisions using mathematical finance techniques	K5
CO5	Analyze relationships between variables in different types of variations	K4

Mapping with Program Outcomes:					
Cos/POs	PO1	PO2	PO3	PO4	PO5
CO1	S	M	S	M	S
CO2	M	S	M	S	S
CO3	S	M	M	S	M
CO4	S	S	S	M	S
CO5	M	S	S	S	S

26MTU11A	IDC: BUSINESS MATHEMATICS
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Syllabus

Unit	Content	Hrs	Resources
I	Set Theory Definition – Notations – Methods of description of sets – Kinds or types of sets – Venn diagram – Set operations – Laws and properties of sets – Number of elements – Cartesian product.	9	Text Book-1
II	Matrices and Determinants Definition – Importance – Notation – order of a matrix – types of matrices – Matrix operations – properties – Determinants and its properties – inverse of a matrix – solving system of simultaneous linear equations by Cramer's rule and Matrix method – Rank of a matrix – consistency of a system of simultaneous linear equations.	12	Text Book-1
III	Sequence and Series Sequence and Series - Arithmetic Progression – sum of natural numbers – Arithmetic Mean - Geometric Progression – sum of the first n terms of a Geometric Progression – Geometric Mean - Harmonic Progression – Harmonic mean.	09	Text Book-1
IV	Mathematics of Finance Basic concepts – Simple Interest – Formulae and problems - Compound Interest – Formulae and problems – Effective rate and Nominal rate of interest – Depreciation – Annuities – present value and amount of an Annuity – Sinking Fund.	10	Text Book-1
V	Ratio, Proportion and variation Ratio – Proportion – Variation – Direct variation – inverse variation – Joint variation – Problems.	08	Text Book-2
Total		48	

Text book	1.	Navnitham PA, 2021, "Business Mathematics and Statistics", Jai Publishers, Trichy [Units - I to IV].
	2.	Rajagopalan S P and Sattanathan R, 2009, Business Mathematics", Second Edition, Tata Mc Graw - Hill Publishing Company Limited, New Delhi. [Unit - V].
Reference Books	1.	Asim Kumar Manna, 2018, "Business Mathematics and Statistics", First Edition, McGraw Hill Education Private Limited, New Delhi.
	2.	Sundaresan V, Jayaseelan S D, 2011, "An introduction to Business Mathematics", 4 th Edition, Sultan Chand & Company, New Delhi.
	3.	Das N.G & Das J.K, 2012, "Business Mathematics and Statistics", First Edition, McGraw Hill Education Private Limited, New Delhi.
	4.	Sancheti D.C & Kapoor V K, 2012, "Business Mathematics", Eleventh Edition, Sultan Chand & Company, New Delhi.

Journal and Magazines	https://www.worldscientific.com/worldscinet/bms
E-Resources and Website	<u>Matrices: Definition, Properties, Types, Formulas, and Examples</u> (geeksforgeeks.org) https://nptel.ac.in

Learning Method	Chalk and Talk/ Assignment/Seminar
Focus of the Course	Skill Development/ Employability

M.S. (Signature)

BoS Chairman/HoD
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